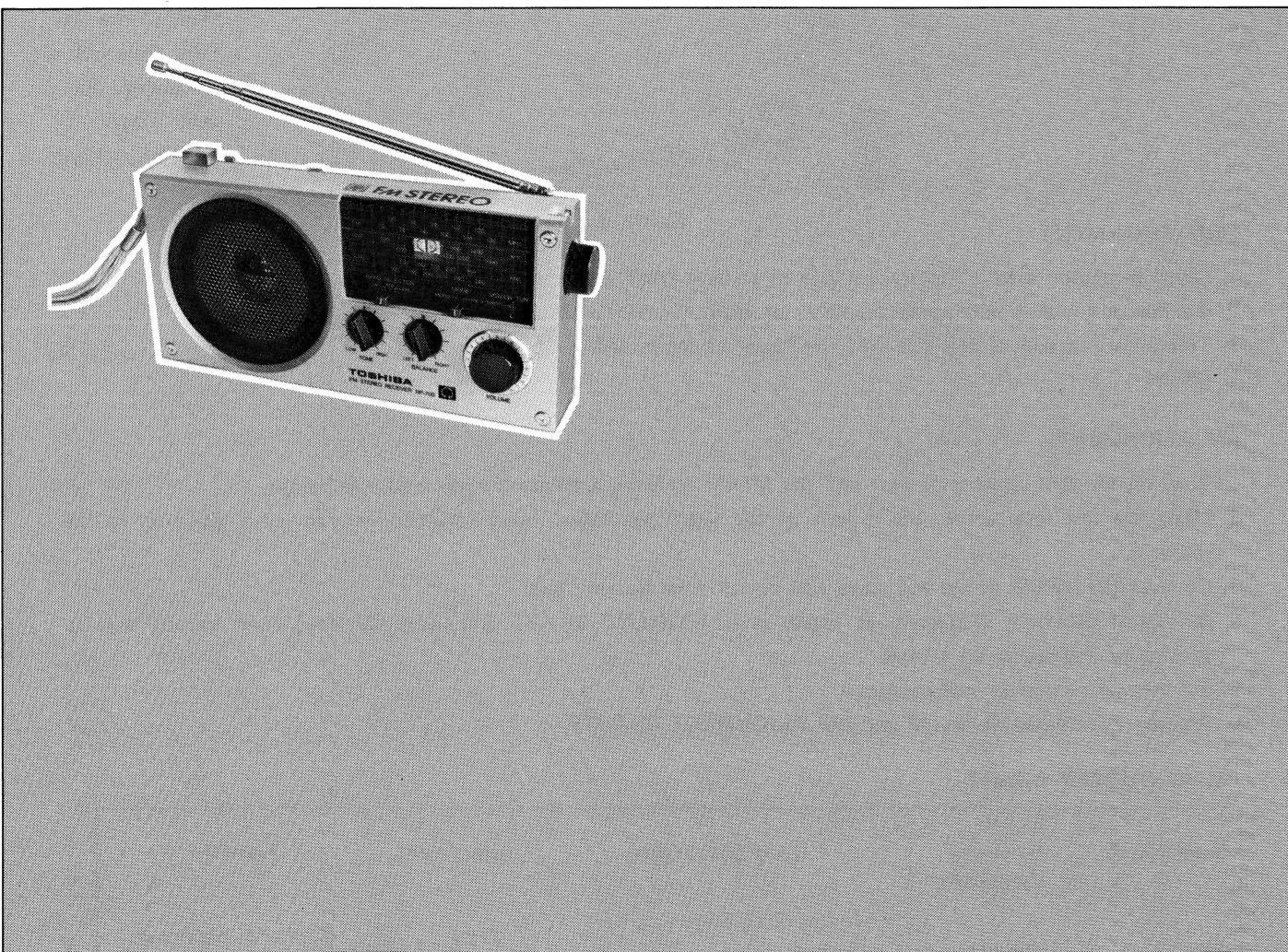


# TOSHIBA

FM STEREO RECEIVER

## RP-700F



### SPECIFICATIONS

Frequency range:	FM 88 – 108 MHz AM 525 – 1605 kHz	Jacks:	Mini jack; Stereo headphone (32 ohms)/Earphone (8 ohms) External power jack; DC 6V positive center pin
Power requirement:	DC 6V "AA" cell x 4 pcs. or AC adaptor with a positive center pin ( $\ominus$ — $\oplus$ )	Dimensions (W x H x D):	167 x 82 x 34 (mm)
Speaker:	Approx. 66mm dia. 4 ohms center tap.	Weight:	400 g (Include battery)
Power output:	1500mW (max.) with built-in speaker		

Specifications are subject to change without notice.

TA, TC

RP-700F

SERVICE DATA  
FILE NO. 150-180

### 1. OPERATING CONTROLS

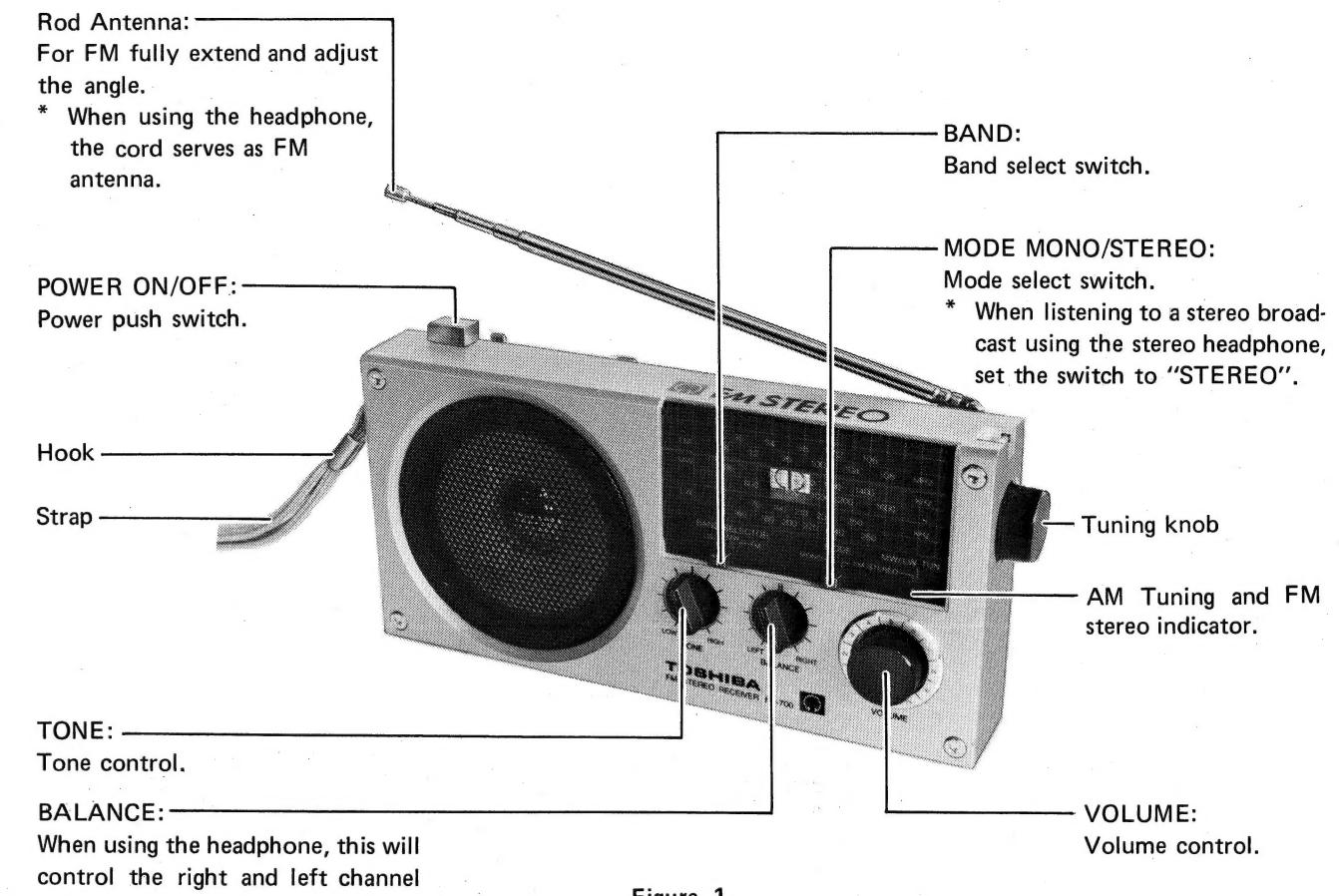


Figure 1.

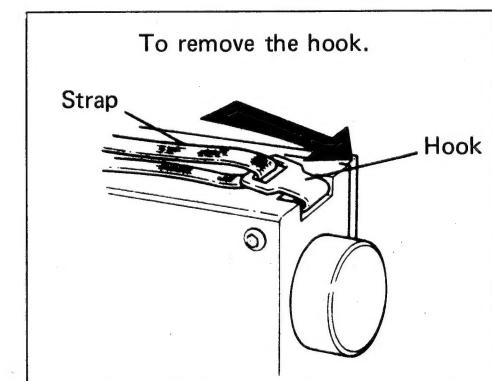


Figure 3.

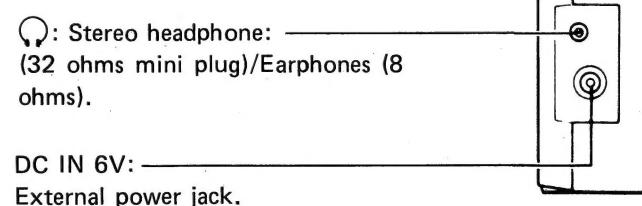


Figure 2.

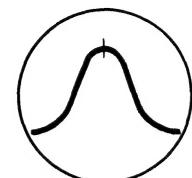
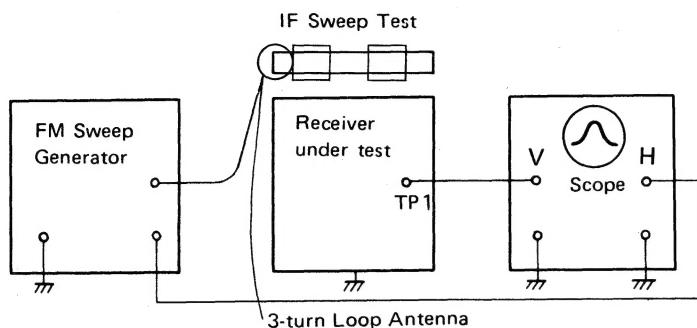


Figure 9.

**FM-IF ALIGNMENT**

1. Set the select switch to FM position.
2. Turn on both sweep generator and oscilloscope, and allow a fifteen-minute warm-up period.
3. Connect the RF SWEEP SIGNAL OUTPUT from the signal generator through the loop antenna to the receiver.
4. Connect the oscilloscope vertical input directly to the test point TP-2 and connect the shielded lead to the test point E or chassis ground.
5. Connect the SWEEP VOLTAGE OUTPUT of the sweep generator to the oscilloscope.
6. Proceed as outlined in the FM-IF ALIGNMENT CHART.

**FM-IF ALIGNMENT CHART**

Step	Signal coupling	Equip.	Tuning	Connection	Adjust. point	Pattern
1	Connect sweep generator output to a three-turn loop antenna of 10cm diameter.	Sweep generator of 10.7 MHz center freq. with 10.7 MHz marker.	Tuning Knob fully counter-clockwise (Lowest Frequency.)	Set scope for connecting output signal from TP-2 to vertical axis of scope "V" and sweep generator output to horizontal axis "H".	T101 T102	Turn the coil T102 fully counter-clockwise to obtain a single peak. Adjust coil T101 in order until the best single peak is obtained. Figure 10 Finally turn the coil T102 to obtain S curve.

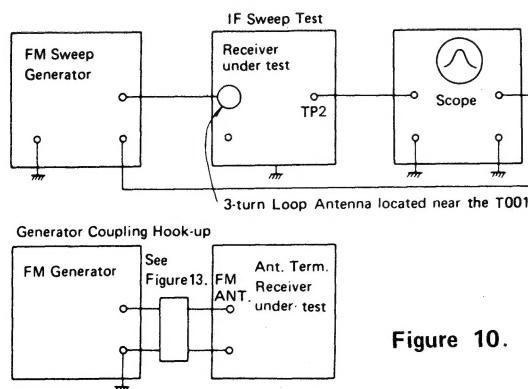


Figure 10.

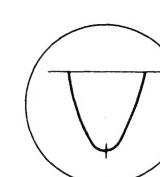


Figure 11.

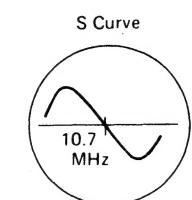


Figure 12.

**FM-RF ALIGNMENT**

1. Turn on the signal generator and the VTVM, and allow a fifteen-minute warm-up period.
2. Connect the signal generator output through a 75 ohm dummy antenna across FM ANT.
3. Connect the VTVM across the voice coil or a 4 ohm dummy load.
4. Set the volume control to mid-position.
5. Adjust the signal generator frequency as indicated in FM-RF ALIGNMENT CHART, and maintain a sufficient signal output level to provide a measurable indication.
6. Proceed as outlined in the FM-RF ALIGNMENT CHART.

**FM-RF ALIGNMENT CHART**

Step	Signal Generator	Radio Dial Setting	Adjustment	Remarks
1	87.5 MHz	Tuning Knob fully Counter-clockwise (Lowest Frequency)	OSC. Coil L003	Adjust for maximum output indication
2	108 MHz	Tuning Knob fully Clockwise (Highest Frequency)	OSC. Trim. TC1	Adjust for maximum output indication
3	Repeat steps 1 and 2 as required.			
4	90 MHz	Tune to signal	Ant. Coil L001	Adjust for maximum output indication
5	106 MHz		Ant. Trim. TC2	
6	Repeat steps 4 and 5 as required.			

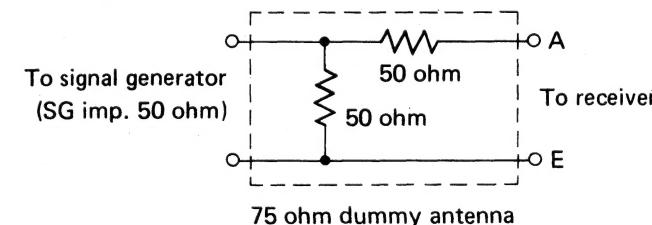


Figure 13.

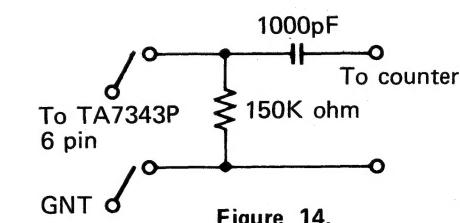


Figure 14.

**FREE RUN FREQUENCY ALIGNMENT**

Adjust VR207 under no signal condition so as to obtain  $38 \text{ kHz} \pm 75 \text{ Hz}$ .

RP-700F

RP-700F

## 5. ELECTRICAL PARTS LOCATIONS

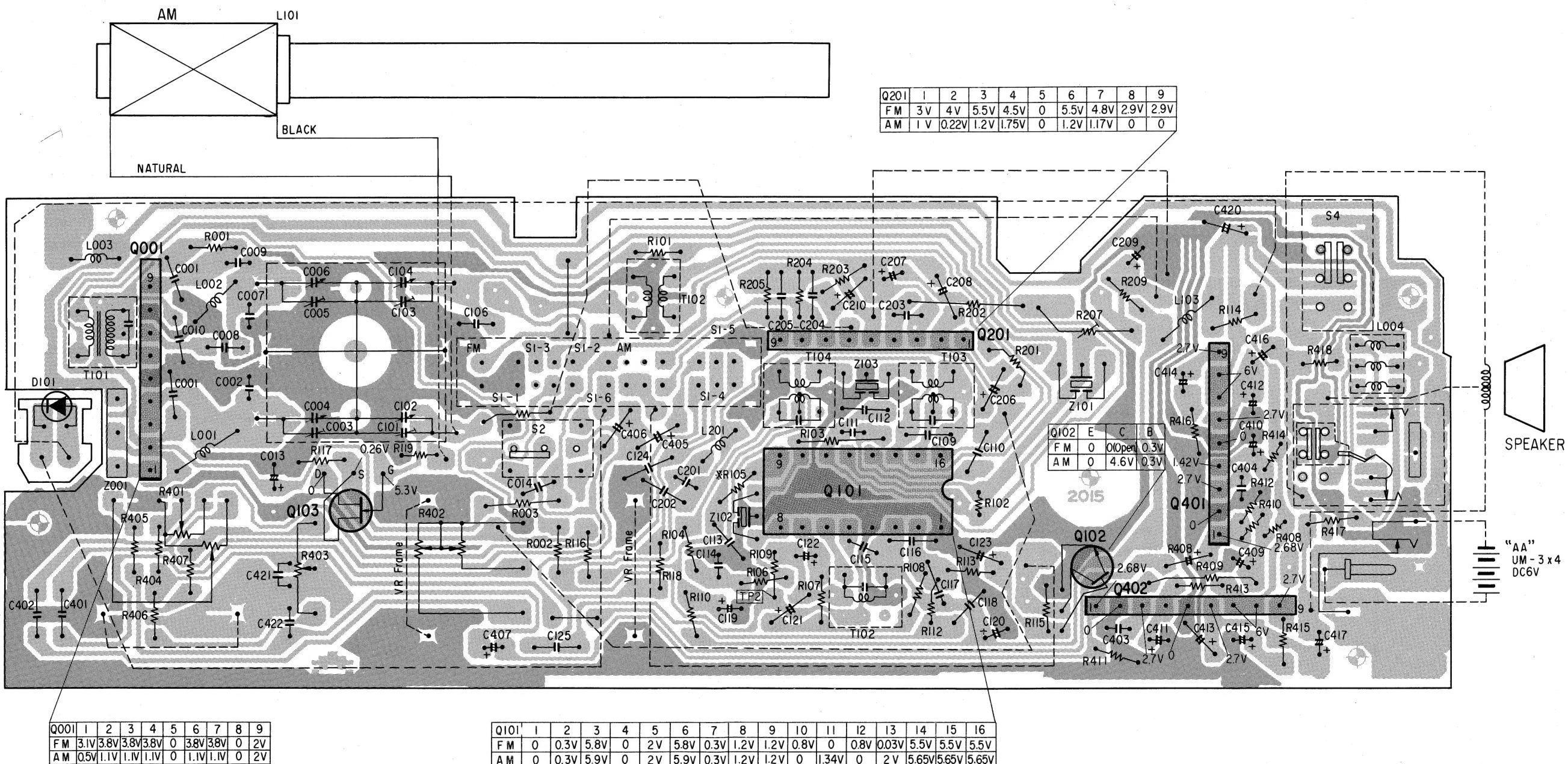


Figure 15.

## 6. SCHEMATIC DIAGRAM

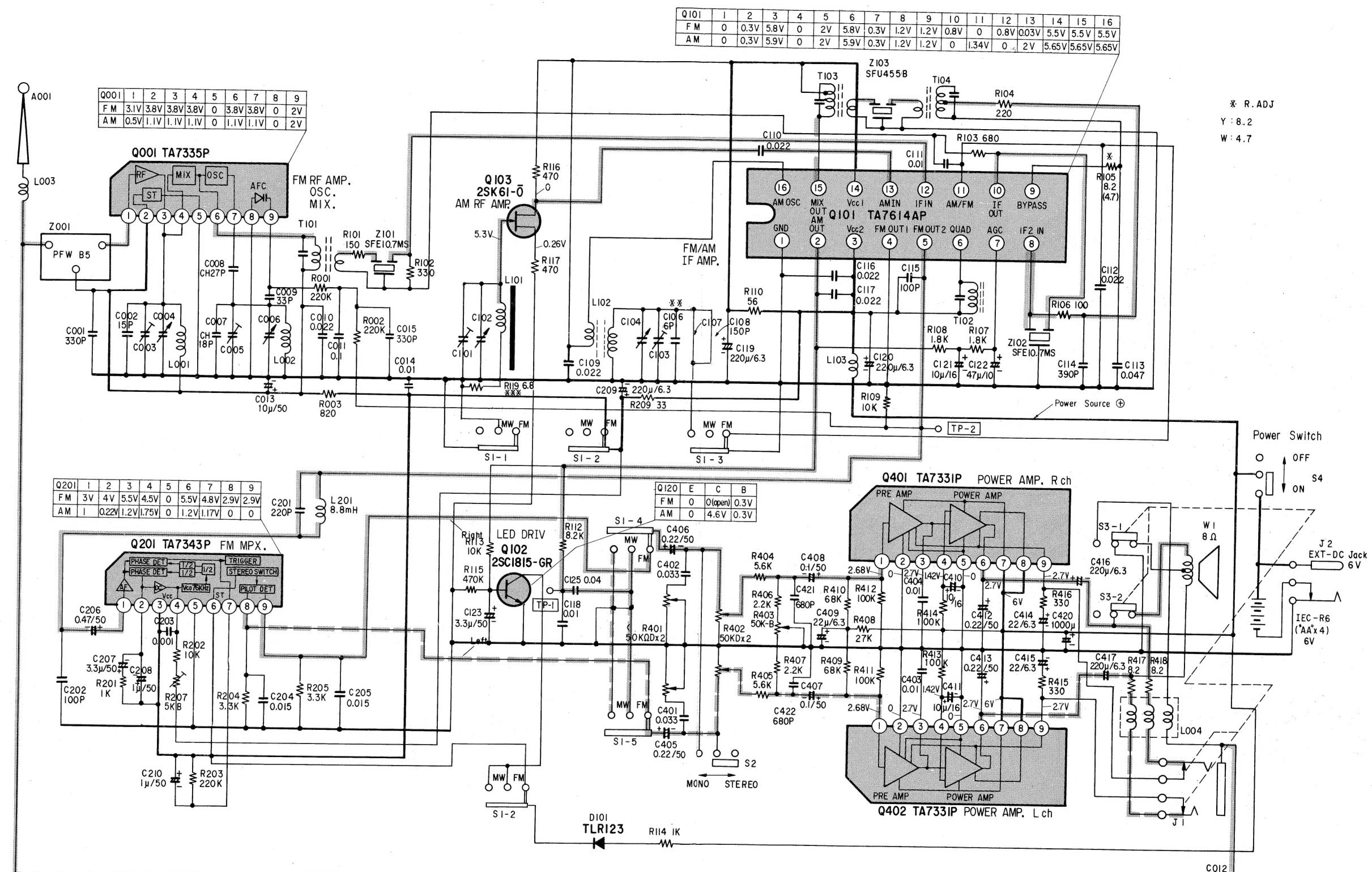
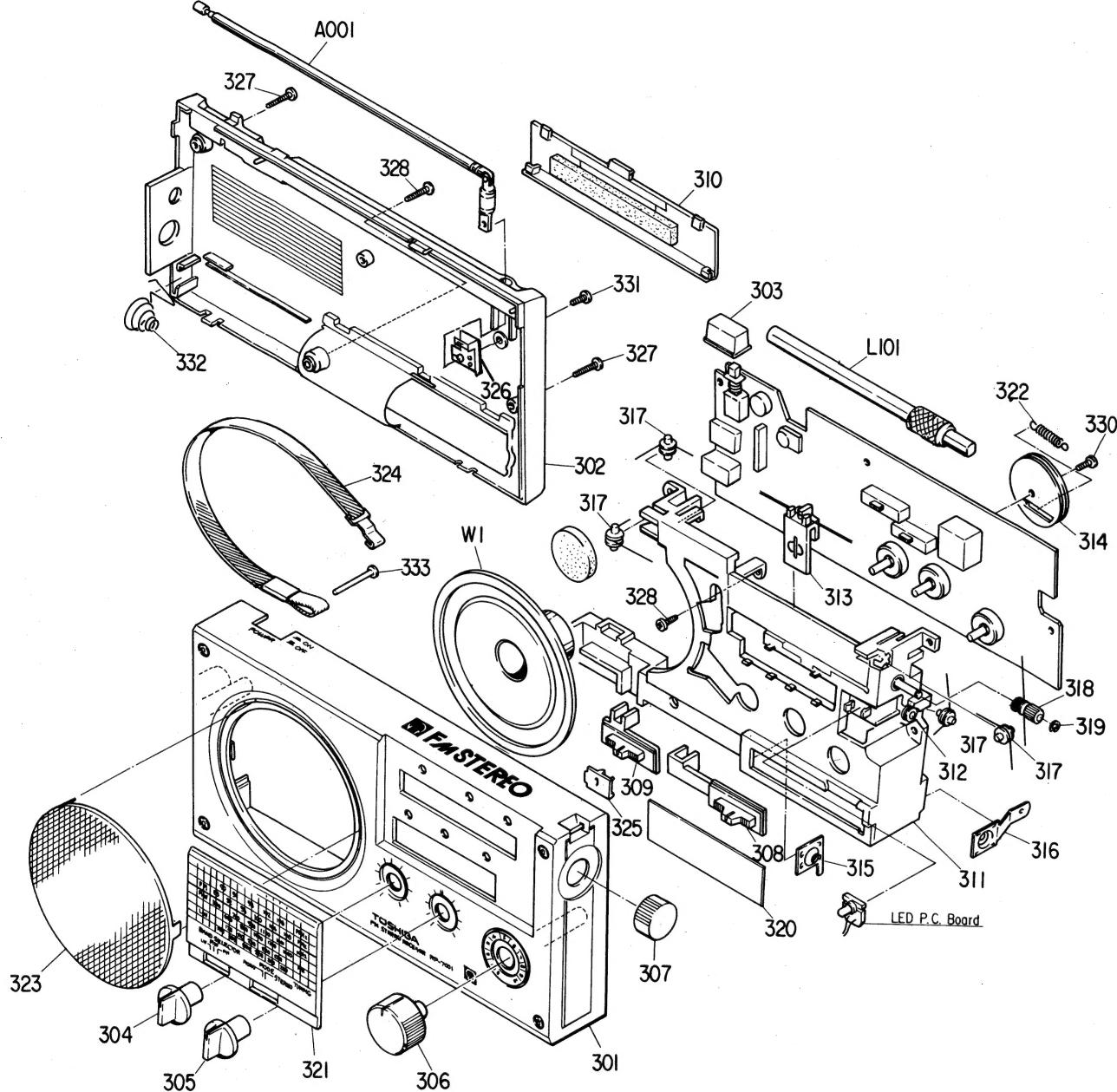


Figure 16.

## 7. CABINET EXPLODED VIEW



## 8. PARTS LIST

Symbol No.	Part No.	Description	Symbol No.	Part No.	Description			
<b>CABINET PARTS</b>								
301	22825061	Cabinet Front Ass'y (w/deco. screw, dial cover, deco. knob, speaker net.)	L001	22294007	Coil, RF, FM			
302	22832582	Cabinet Back	L002	22294019	Coil, Oscillator, FM			
303	22884161	Knob, Power	L003	22292141	Coil, Antenna, Loading FM			
304	22884195	Knob, Tone	L004	22290017	Coil, Jack-Antenna, Choke FM			
305	22884195	Knob, Balance	L101	22242881	Coil, Antenna, AM			
306	22884197	Knob, Volume	L102	22245395	Coil, Oscillator, AM			
307	22884199	Knob, Tuning	L103	22230106	Coil, Choke, 470uH			
308	22884163	Knob, Mono/Stereo	L201	22232219	Coil, Choke, 8.8mH			
309	22884166	Knob, Band Select	T101	22265823	IF Transformer, FM			
310	22822204	Cover with Cushion, Battery	T102	22267410	IF Transformer, FM			
311	22714124	Mould Frame	T103	22264868	IF Transformer, AM			
312	22742268	Pulley, Small	T104	22264819	IF Transformer, AM			
313	22741370	Pointer	<b>ELECTRICAL PARTS</b>					
314	22742276	Dial Drum	S1	22195927	Switch, Slide, Band Select			
315	22725232	Contact A, Battery	S2	22195752	Switch, Slide, ST-MONO.			
316	22725241	Contact B, Battery	S3, J1	22163862	Jack w/Switch, Ø3.5, Stereo			
317	22742165	Pulley with Shaft	S4	22195929	Switch, Power			
318	22743301	Tuning Shaft	J2	22163898	Jack, Ext. Power-DC			
319	22703118	E Ring, Tuning Shaft	Z001	22153197	Filter, FM-RF PFWB5			
320	22758353	Back Sheet, Pointer	Z101, 102	22153058	Filter, Ceramic, SFE10.7MS2			
321	22837446	Dial Cover	Z103	22153070	Filter, Ceramic, SFU455B			
322	25776391	Spring, Dial Drum	W1	22152380	Speaker, SP-06S4T			
323	22844377	Speaker Net	A001	22124493	Rod Antenna			
324	22993045	Hand Strap	<b>CAPACITORS</b>					
325	25779127	Metal Holder, Speaker	D = ±0.5pF, J = ±5%, K = ±10%, M = ±20%, Z = -20+80%	Work voltages of capacitor are DC 50V unless otherwise noted.				
326	25779227	Antenna Contact, Rod Antenna	Abbreviations:	CD = Ceramic Disk, EL = Electrolytic,				
327	22707782	Screw, BID Ø2.6 x 12mm, Chrome	MY = Mylar,					
328	22707303	Screw, BID Ø2.6 x 10mm, Tapping	BL = Barrier Layer,					
330	22707829	Screw, BID Ø2.6 x 4mm	C101 ~ 104, 003 ~ 006	22308184	Variable			
331	22707548	Screw, BID Ø2.6 x 5mm, Chrome, Rod Antenna	C001	22362331	CD, 330pF, K			
332	25777082	Spring, Battery	C002	22361150	CD, 15pF, J			
333	22743274	Stopper, Hand Strap	C007	22360133	CD, 18pF, CH, J			
<b>TRANSISTORS, ICS &amp; DIODES</b>			C008	22360135	CD, 27pF, CH, J			
Q001	B0325270	I.C., TA7335P	C009	22362330	CD, 33pF, K			
Q101	B0355421	I.C., TA7614AP-W	C010	22360606	BL, 0.022mfd, M, 25V			
Q102	A6317460	Transistor, 2SC1815 NEW-GR	C011	22360347	BL, 0.1mfd, Z, 12V			
Q103	A6041020	Transistor, 2SK61-O	C012	22362101	CD, 100pF, K			
Q201	B0325350	I.C., TA7343P	C013	22488100	EL, 10mfd, 50V			
Q401, 402	B0325200	I.C., TA7331P	C014	22360604	BL, 0.01mfd, M, 25V			
D101	A8603121	Diode, TLR226	C015	22343391	CD, 390pF, M			
			C106	22361609	CD, 6pF, D			

Symbol No.	Part No.	Description	Symbol No.	Part No.	Description
C109, 110	22360606	BL, 0.022mfd, M, 25V	R104	22540502	220 ohm
C111	22360604	BL, 0.01mfd, M, 25V	R105	22540482	4.7 ohm for IC TA7614AP-W
C112	22360606	BL, 0.022mfd, M, 25V	R105	22540485	8.2 ohm, IC TA7614AP-Y
C113	22360608	BL, 0.047mfd, M, 25V	R106	22540498	100 ohm
C114	22343391	CD, 390pF, M	R107, 108	22540513	1.8K ohm
C115	22362101	CD, 100pF, K	R109	22550192	10K ohm
C116	22360606	BL, 0.022mfd, M, 25V	R110	22540495	56 ohm
C117	22360606	BL, 0.022mfd, M, 25V	R112	22540521	8.2K ohm
C118	22360604	BL, 0.01mfd, M, 25V	R113	22540522	10K ohm
C119, 120	22440405	EL, 220mfd, 6.3V	R114	22540510	1K ohm
C121	22440276	EL, 10mfd, 16V	R115	22540542	470K ohm
C122	22483470	EL, 47mfd, 10V	R116, 117	22540506	470 ohm
C123	22440274	EL, 3.3mfd, 50V	R119	22540494	6.8 ohm
C125	22360608	BL, 0.047mfd, M, 25V	R201	22550181	1K ohm
C201	22360364	CD, 220pF, K	R202	22540202	10K ohm
C202	22362101	CD, 100pF, K	R203	22540538	220K ohm
C203	22371102	MY, 1000pF, J	R204, 205	22540516	3.3K ohm
C204, 205	22360328	BL, 0.015mfd, M	R207	22658513	Semi-fixed Variable, 5K-B
C206	22440271	EL, 0.47mfd, 50V	R209	22540492	33 ohm
C207	22440274	EL, 3.3mfd, 50V	R401	22651571	Variable, 50K-D, Tone
C208	22440272	EL, 1mfd, 50V	R402	22651570	Variable, 50K-D, Volume
C209	22440406	EL, 220mfd, 6.3V	R403	22625433	Variable, 50K-B, Balance
C210	22440272	EL, 1mfd, 50V	R404, 405	22540519	5.6K ohm
C401, 402	22360607	BL, 0.033mfd, M, 25V	R406, 407	22540514	2.2K ohm
C403, 404	22349102	CD, 1000pF, K	R408	22550197	27K ohm
C405, 406	22440320	EL, 0.22mfd, 50V	R409	22540212	68K ohm
C407, 408	22440321	EL, 0.1mfd, 50V	R410	22550202	68K ohm
C409	22440277	EL, .22mfd, 6.3V	R411	22540534	100K ohm
C410, 411	22440276	EL, 10mfd, 16V	R412	22550204	100K ohm
C412, 413	22440320	EL, 0.22mfd, 50V	R413	22540534	100K ohm
C414, 415	22440277	EL, 22mfd, 6.3V	R414	22550204	100K ohm
C416, 417	22440406	EL, 220mfd, 6.3V	R415	22540504	330 ohm
C420	22440466	EL, 1000mfd, 10V	R416	22550175	330 ohm
C421, 422	22343681	CD, 680pF, K	R417, 418	22555829	8.2 ohm, 1/4W
<b>RESISTORS</b>					
Resistors are carbon film 1/8W, ±5%, unless otherwise noted.					
K = 1000, M = 1000000					
R001, 002	22540538	220K ohm	<b>ACCESSORIES</b>		
R003	22540189	820 ohm	AC01	22903313	Owner's Manual, 2-languages
R101	22540500	150 ohm			
R102	22550175	330 ohm			
R103	22540188	680 ohm			

**TOSHIBA CORPORATION**  
2-1, GINZA 5-CHOME, CHUO-KU, TOKYO 104, JAPAN